

## REMARKS

The Office Action objected to the specification as failing to provide proper antecedent basis for the claimed subject matter in claims 16, 18-20, 22-29, 31, and 35. The Office Action rejected claims 16, 18-20, 22-29, 31, and 35 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Office Action rejected claims 1, 3, 4, 16, 18, 19, 32, 35, and 37 under 35 U.S.C. § 103(a) as being unpatentable over United States Patent 6,160,846, issued to Chiang et al. (“Chiang”), in view of non-patent literature “Scalable Rate Control for MPEG-4 Video” by Lee et al. (“Lee”). The Office Action rejected claims 5, 7-10, 12-14, 20, 22-25, 27-29, 31, 34, 38, 39, and 42 under 35 U.S.C. § 103(a) as being unpatentable over Chiang in view of United States Patent 5,847,766, issued to Peak (“Peak”). The Office Action rejected claims 11, 26, 40, and 41 under 35 U.S.C. § 103(a) as being unpatentable over Chiang in view of Peak in further view of United States Patent 7,079,581 issued to Noh et al. (“Noh”).

In this Amendment, Applicants have amended claims 3-5, 7-10, 16, 20, 22-25, 29 and 38-39. Applicants have not canceled any claims. Applicants have added new claim 43. Applicants do not surrender any equivalents to any amended limitation or elements of any claim. Accordingly, claims 1, 3-5, 7-14, 16, 18-20, 22-29, 31-32, 34-35, and 37-43 will be pending after entry of this Amendment. Applicants respectfully request reconsideration of the rejections.

### **I. Objection to the Specification**

The Office Action objected to the Specifications as failing to provide proper antecedent basis for the claimed subject matter of a “computer-readable medium” or “processor” in claims 16, 18-20, 22-29, 31, and 35. Applicants respectfully submit that “computer-readable medium” was included in the original claims as filed on 11/17/03. The test for satisfying the written description requirement is whether the disclosure of the application reasonably conveys that the inventor at the time of filing had possession of the claimed subject matter. *See* MPEP 2163.03. Claims 16 and 20 were present in

the application at the time of filing and both recited “computer readable medium,” therefore the language of these claims themselves shows that the inventor was in possession of the invention claimed in claims 16 and 20.

MPEP § 608.01(o), on which the objection is based, states that “[t]he meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import. . . .” This implies that weight is given to the meaning of a term as opposed to the precise recitation of the term in the claim. The meaning of a term in a claim “must be given their plain meaning unless the plain meaning is inconsistent with the specification” where “the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.” See Phillips v. AWH Corp., 415 F.3d 1303, 1313, (Fed. Cir. 2005).

Applicants respectfully submit that the meaning of the term “computer readable medium” is clear to one of ordinary skill in the art as evidenced by the over 50,000 issued patents that contain such a term. Furthermore, Applicants respectfully submit that it is well known in the art that a computer readable medium is executable by a processor. In view of the foregoing, Applicants respectfully request withdrawal of the objection to the specification.

## **II. Rejection of Claims 16, 18-20, 22-29, 31, and 35 under 35 U.S.C. § 101**

The Office Action rejected claims 16, 18-20, 22-29, 31, and 35 under § 101 because the claimed invention is directed to non-statutory subject matter. Claims 18, 19, and 35 are dependent directly on claim 16. Claims 22-28 are dependent directly or indirectly on claim 20. Claims 31 is dependent directly on claim 29.

Applicants respectfully submit that amended claims 16, 20, and 29 are in compliance with §101. As claims 18, 19, and 35 are dependent directly on claim 16, claims 22-28 are dependent directly or indirectly on claim 20, and claim 31 is dependent directly on claim 29, Applicants

respectfully submit that these claims are patentable for at least the same reasons that were discussed above from claim 16, 20, and 29. In view of the foregoing, Applicants respectfully request reconsideration of the § 101 rejection of claims 16, 18-20, 22-29, 31, and 35.

### **III. Rejection of Claims 1, 3, 4, 32 and 37 under 35 U.S.C. § 103**

The Office Action rejected claims 1, 3, 4, 32 and 37 under § 103(a) as being unpatentable over Chiang in view of Lee. Claims 3, 4, 32, and 37 are dependent directly on claim 1.

Claim 1 recites a method of quantizing a particular macroblock of a particular frame in a sequence of digital video frames. The particular frame has a frame type. The method determines a buffer occupancy accumulator for the particular frame as a difference between an actual amount of bits used to encode a previous frame having the same frame type as the particular frame and a requested amount of bits for the previous frame having the same frame type as the particular frame. The method limits an amount of change in the buffer occupancy accumulator based upon the frame type. The method encodes the macroblock using a quantizer value computed based on the buffer occupancy accumulator. The determining of a buffer occupancy accumulator, the limiting an amount of change in the buffer occupancy, and the encoding of the macroblocks are performed by an encoder.

Applicants respectfully submit that Chiang, Lee, or their combination do not render claim 1 unpatentable for at least the following reasons. *First*, Chiang, Lee, or their combination does not disclose or suggest a method that determines a buffer occupancy accumulator as a difference between an actual amount of bits used and a requested amount of bits for a previous frame having the same frame type as the particular frame. The Office Action acknowledges that Chiang differs from the method of claim 1 because the buffer occupancy is determined from a discrepancy in bit count at the macroblock level instead of at the frame level. *See* page 6 of the Office Action. The Office Action then states Lee teaches that it was known to adjust encoding on a difference between

actual bit count and target bit count at the frame level. *See, Id.* Applicants respectfully disagree with the characterization of Lee. The cited section of Lee discloses computing a target bit count for a P frame at a particular time ( $t+1$ ). *See* § II.C of Lee. The target bit count in Lee can further be adjusted based on buffer fullness. *See, Id.* Applicants respectfully submit that determining a target bit count for a particular frame based on buffer fullness is not the same as calculating a buffer occupancy accumulator based on a difference between an actual amount of bits used and a requested amount of bits for a previous frame having the same frame type as the particular frame.

*Second*, a modification to the basic principles of operation of Lee would have to be presumed to support an obviousness rejection. If a proposed modification or combination would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In *re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); MPEP 2143.01. The Office action states that it would have been obvious to scale the macroblock-level buffer fullness and rate control system of Chiang to the frame level as taught by Lee. *See* page 6 of the Office Action. However, as stated above, the cited section of Lee discloses estimating a target bit count for a P frame at a particular time ( $t+1$ ), not for calculating a buffer occupancy accumulator. *See* § II.C of Lee. The mere mention of computing a target bit count at the frame level does not inherently lead to scaling the buffer fullness computation of Chiang to the frame level. In other words, the basic principle of operation of Lee would have to be modified to calculate a buffer occupancy accumulator instead of estimating a target bit count at the frame level to support an obviousness rejection. Therefore, the teaching of Chiang and Lee are not sufficient to render claim 1 *prima facie* obvious.

*Third*, there is no motivation to combine Lee and Chiang to show determining a buffer occupancy accumulator as a difference between an actual amount of bits used and a requested amount of bits for a previous frame having the same frame type as the particular frame. The cited

section of Lee discloses 1) target bit estimation, 2) adjustment of target bits based on buffer status for a particular frame, and 3) quantization parameter calculation. *See* § II.C of Lee. Calculation of a buffer occupancy accumulator is not disclosed in Lee, therefore there is no motivation to combine Lee and Chiang to suggest determining a buffer occupancy accumulator as a difference between an actual amount of bits used and a requested amount of bits for a previous frame having the same frame type as the particular frame.

Accordingly, Applicants respectfully submit that the cited reference does not render claim 1 unpatentable. As claims 3, 4, 32, and 37 are dependent directly on claim 1, Applicants respectfully submit that claims 3, 4, 32, and 37 are patentable over the cited reference for at least the reasons that were discussed above for claim 1. Furthermore, Applicants respectfully submit that many of the dependent claims include novelties that are not found in the cited references. Such dependent claims are further discussed below.

### **Dependent Claim 3**

Claim 3 recites the method of claim 1 where the limiting the amount of change in the buffer occupancy accumulator is performed by clipping the buffer occupancy accumulator with respect to the target number of bits of the particular frame.

Applicants respectfully submit that Chiang, Lee, or their combination do not render claim 3 unpatentable for at least the following reasons. Chiang, Lee, or their combination do not teach, disclose, or suggest limiting the amount of change in the buffer occupancy accumulator by clipping the buffer occupancy accumulator with respect to the target number of bits of the particular frame. The Office Action cites column 2, lines 9-15 of Chiang as disclosing such a limitation. Applicants respectfully submit that the cited section describes resolving impending overflow, as a last resort, by having the encoder discard high frequency discrete cosine transforms (DCT) coefficients and only transmitting low frequency DCT coefficients. Applicants respectfully submit that discarding DCT

coefficients is not the same as clipping buffer occupancy accumulator. Instead, the cited section discloses drastically reducing the number of transmitted bits so that the number of bits does not cause buffer overflow. Reducing the number of transmitted bits is not the same as clipping the buffer occupancy accumulator. Accordingly, Applicants respectfully submit that the cited references do not render claim 3 unpatentable.

#### **Dependent Claim 4**

Claim 4 recites the method of claim 1 where the limiting an amount of change in the buffer occupancy accumulator is performed by scaling the buffer occupancy accumulator with respect to the target number of bits of the particular frame.

Applicants respectfully submit that Chiang, Lee, or their combination do not render claim 4 unpatentable for at least the following reasons. Chiang, Lee, or their combination do not teach, disclose, or suggest limiting the amount of change in the buffer occupancy accumulator by scaling the buffer occupancy accumulator with respect to the target number of bits of the particular frame. The Office Action cites column 13, lines 60-65 of Chiang as disclosing such a limitation. Applicants respectfully submit that the cited section describes a method that establishes a quantizer scale that varies depending upon the fullness of the output buffer. The calculated quantizer scale is then used to encode a particular macroblock. Applicants respectfully submit that a quantizer scale is not the same as scaling the buffer occupancy accumulator. Scaling the buffer occupancy accumulator, as recited in claim 4, is for limiting the amount of change in the buffer whereas the cited quantizer scale in Chiang is for encoding a macroblock. Therefore, Chiang does not disclose what is recited in claim 4. Accordingly, Applicants respectfully submit that the cited references do not render claim 4 unpatentable.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 1, 2, 3, 32, and 37.

#### **IV. Rejection of Claims 5, 7-13, 38, and 39 under 35 U.S.C. § 103**

The Office Action rejected claims 5, 7-10, 12-13, 38, and 39 under § 103 as being unpatentable over Chiang in view of Peak. The Office Action rejected claim 11 under 35 U.S.C. § 103 as being unpatentable over Chiang in view of Peak, and in further view of Noh. Claims 7-13, 38, and 39 are dependent directly or indirectly on claim 5.

Claim 5 recites a method of quantizing a particular macroblock of a particular frame in a sequence of digital video frames. The method determines a base quantizer value. The method determines a quantizer adjustment based on a difference between a number of bits actually used to encode previous macroblocks of the frame and a number of bits that should have been used to encode previous macroblocks of the frame. The method encodes the macroblock based on a quantizer value computed as a sum of the base quantizer value and the quantizer adjustment. The determining a base quantizer value, determining a quantizer adjustment, and encoding are performed by an encoder.

Applicants respectfully submit that Chiang, Peak, or their combination do not render claim 5 unpatentable for at least the following reasons. Neither Chiang, Peak, nor their combination disclose or suggest determining a quantizer adjustment based on a difference between a number of bits actually used to encode previous macroblocks of the frame and a number of bits that should have been used to encode previous macroblocks of the frame. The Office Action cites error B(ERROR) between target bit value TB and estimated bit count EB as the claimed difference between the number of bits actually used and a number of bits that should have been used. Applicants respectfully submit that number of bits actually used is not the same as an estimated bit count. It would be improper to combine Chiang and Peak to show the difference between the number of bits actually used and a number of bits that should have been used because it would require equating a number of bits actually used to an estimated number of bits to be used for a particular frame.

Accordingly, Applicants respectfully submit that the cited reference does not render claim 5 unpatentable. As claims 7-13, 38, and 39 are dependent directly on claim 5, Applicants respectfully submit that claims 7-13, 38, and 39 are patentable over the cited reference for at least the reasons that were discussed above for claim 5. Furthermore, Applicants respectfully submit that many of the dependent claims include novelties that are not found in the cited references. Such dependent claims are further discussed below.

#### **Dependent Claim 7**

Claim 7 recites the method of claim 5 where the quantizer adjustment is further based on a scaling function that is different for different macroblock coding methods. The scaling function is a function of a position of the particular macroblock within the particular frame.

Applicants respectfully submit that Chiang, Peak, or their combination do not render claim 7 unpatentable for at least the following reasons. Chiang, Peak, or their combination do not teach, disclose, or suggest a scaling function that is a function of a position of the particular macroblock within the particular frame. The Office Action cites Table 1 of Peak as disclosing macroblock classification MC as determined in part in edge data in a macroblock and complexity of macroblock data. Applicants respectfully submit that a macroblock class is not the same as a scaling function for determining a quantizer adjustment. Furthermore, determination of a macroblock class is not based on the position of a particular macroblock within a particular frame. Peak discloses macroblock classes as representing two color signals and four luminance signal classifications. *See* column 3, line 66 through column 4, line 3 of Peak. The edge data referred to in Table 1 of Peak is a luminance signal classification which is not related to the position of a particular macroblock within a particular frame. Accordingly, Applicants respectfully submit that the cited references do not render claim 7 unpatentable.



### **Dependent Claim 8**

Claim 8 recites the method of claim 5 where the quantizer adjustment is further based on a scaling function that is different for different macroblock coding methods. The scaling function is a function of bits per pixel of the particular frame.

Applicants respectfully submit that Chiang, Peak, or their combination do not render claim 8 unpatentable for at least the following reasons. Chiang, Peak, or their combination do not teach, disclose, or suggest a scaling function that is a function of bits per pixel of the particular frame. The Office Action cites Table 1 of Peak as disclosing macroblock classification MC as determined in part in edge data in a macroblock and complexity of macroblock data. Applicants respectfully submit that a macroblock class is not the same as a scaling function for determining a quantizer adjustment. Furthermore, determination of a macroblock class is not based on the bits per pixel of a particular frame. Peak discloses macroblock classes as representing two color signals and four luminance signal classifications. *See* column 3, line 66 through column 4, line 3 of Peak. The complexity of the macroblock as cited by the Office Action is based on a luminance signal classification and color sensitivity which is not the same as bits per pixel of a particular frame. Accordingly, Applicants respectfully submit that the cited references do not render claim 8 unpatentable.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 5, 7-13, 38, and 39.

### **V. Rejection of Claim 14, 34, and 40-42 under 35 U.S.C. § 103**

The Office Action rejected claims 14, 34, and 42 under §103 as being unpatentable over Chiang in view of Peak. The Office Action rejected claims 40 and 41 as being unpatentable over Chiang in view of Peak and in further view of Noh. Claims 34 and 40-42 are dependent directly on claim 14.

Claim 14 recites a method of determining a quantizer value for quantizing a particular macroblock of a particular frame in a sequence of digital video frames. When the particular frame is a first frame type, the method computes a number of bits that should have been used to encode all previously encoded macroblocks of the particular frame by using a first formula. When the particular frame is a second frame type, the method computes the number of bits that should have been used to encode all previously encoded macroblocks of the particular frame by using a second formula. The method determines a delta value that includes a difference between a number of bits actually used to encode all previous macroblocks of the frame and the computed number of bits that should have been used. The method quantizes the particular macroblock using a quantizer value computed as a sum of a base quantizer value and a quantizer adjustment. The quantizer adjustment is based on the delta value. The computing, determining, and quantizing are performed by an encoder.

Applicants respectfully submit that Chiang, Peak, or their combination do not disclose, teach, or suggest the method of claim 14 for at least the following reasons. *First*, Chiang does not disclose or suggest a method that computes a number of bits that should have been used to encode all previously encoded macroblocks of a particular frame by using a first formula when the particular frame is a first frame type and a second formula when the particular frame is a second frame type. The Office Action cites to equation 15 in column 13 of Chiang, specifically the  $T$  variable that is the target bit budget for a previous I, P, or B frame as the claimed number of bits that should have been used to encode all previously encoded macroblocks of the particular frame. However, Applicants respectfully submit that  $T$  is the bit budget for an entire frame in the previous frame of the same type, not a number of bits that should have been used to encode all previously encoded macroblocks of the particular frame.

*Second*, Chiang does not disclose a delta value that includes a difference between a number of bits actually used to encode all previous macroblocks of the frame and the computed number of

bits that should have been used. The Office action cites the difference between the  $B$  and  $T$  term in equation 15 of Chiang as the claimed delta value of claim 14. *See* pages 9-10 of the Office Action. Applicants respectfully submit that the delta value of claim 14 is not equivalent to the difference between the  $B$  and  $T$  term in Chiang. As stated above, the  $T$  term is a target bit budget of a previous frame, not the number of bits that should have been used for the particular frame. Applicants respectfully submit that a target bit budget for a previous frame is not equivalent to a computed number of bits that should have been used to encode all previous macroblocks of the particular frame. Thus the difference in the  $B$  and  $T$  term in Chiang is not the same as the claimed delta value recited in claim 14.

*Third*, Peak does not quantize a particular macroblock using a quantizer value computed as a sum of a base quantizer value and a quantizer adjustment, where the quantizer adjustment is computed based on the delta value. The Office Action states using the difference between the  $B$  and  $T$  term of Chiang in Peak for computing a quantization adjustment is equivalent to quantizing the macroblock as the sum of the base quantizer and the quantizer adjustment based on the delta value. *See* pages 9-10 of the Office Action. Applicants respectfully submit that, as stated above, the difference between the  $B$  and  $T$  term of Chiang is not the same as the delta value recited in claim 14. Therefore, combining the equations of Chiang and Peak would not yield the same result as recited in claim 14.

*Fourth*, Peak does not disclose determining a delta value that is a difference between a number of bits actually used to encode all previous macroblocks of the frame and the computed number of bits that should have been used. The Office Action states that combining the  $B(\text{ERROR})$  in equation 6 of Peak with Chiang and performing the quantization adjustment is the claimed step of quantizing the macroblocks. *See* page 10 of the Office Action. However, Peak does not use a number of bits actually used to encode all previous macroblocks of the frame to compute  $B(\text{ERROR})$ . As

stated in the arguments for claim 5, B(ERROR) is computed using an estimated bit count which is not equivalent to the number of bits actually used to encode all previous macroblocks.

*Fifth*, there is no motivation to combine the quantization adjustment equation of Peak with the buffer fullness equation of Chiang. The Office Action states using the difference between the *B* and *T* term of Chiang with the quantizer adjustment equation of Peak yields the claimed step of quantizing the macroblock as recited in claim 13. However, the B(ERROR) in Peak is used to adjust a reference quantization step size, while the difference between the *B* and *T* term in Chiang is used to calculate a buffer fullness measure. Since the equations of Chiang and Peak cited by the Office Action do not correspond to similar calculations, there is no motivation to combine these equations to yield a useful result. Furthermore, the calculation in Chiang, as described above, is not the same as the difference between a number of bits actually used to encode all previous macroblocks of the frame and the computed number of bits that should have been used as recited in claim 14.

Accordingly, Applicant respectfully submits that Chiang, Peak, or their combination do not render claim 14 unpatentable. As claims 34 and 40-42 depend directly on claim 14, Applicant respectfully submits that claims 34 and 40-42 is patentable over Chiang, Peak, Noah, or their combination for at least the reasons discussed above for claim 14. In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 14, 34, and 40-42.

#### **VI. Rejection of Claim 16 under 35 U.S.C. § 103**

The Office Action rejected claims 16, 18-19, and 35 under §103 as being anticipated by Chiang. Claims 18-19 and 35 are dependent directly on claim 16.

Claim 16 recites a computer readable medium storing a computer program. When the computer program is executed by a processor, the computer program quantizes a particular macroblock of a particular frame in a sequence of digital video frames. The particular frame has a

frame type. The computer program determines a buffer occupancy accumulator for the particular frame as a difference between an actual amount of bits used to encode a previous frame having the same frame type as the particular frame and a requested amount of bits for the previous frame having the same frame type as the particular frame. The computer program limits an amount of change in the buffer occupancy accumulator based upon the frame type. The computer program encodes the macroblock using a quantizer value computed based on the buffer occupancy accumulator.

The Office Action rejected claim 16 on the same rationale as claim 1. Accordingly, for reasons similar to those stated above for claim 1, Applicants respectfully submit that Chiang does not render claim 16 unpatentable. As claim 18-19 and 35 depends directly on claim 16, Applicants respectfully submit that claim 18-19 and 35 are patentable over Chiang for at least the reasons discussed above for claim 16. Furthermore, Applicants respectfully submit that many of the dependent claims include novelties that are not found in the cited references. Such dependent claims are discussed below.

#### **Dependent claims 18 and 19**

The Office Action rejected claims 18 and 19 on the same rationale as claim 3 and 4, respectively. Accordingly, for reasons similar to those stated above for claim 3 and 4, Applicants respectfully request that claims 18 and 19 are patentable over the cited references. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 16, 18-19, and 35.

#### **VII. Rejection of Claims 20 and 22-28 under 35 U.S.C. 103**

The Office Action rejected claims 20, 22-25, and 27-28 under § 103(a) as being unpatentable over Chiang in view of Peak. The Office Action also rejected claim 26 under § 103(a) as being unpatentable over Chiang in view of Peak and further in view of Noh.

Claim 20 recites a computer readable medium storing a computer program. When the computer program is executed by a processor, the computer program quantizes a particular macroblock of a particular frame in a sequence of digital video frames. The computer program determines a base quantizer value. The computer program determines a quantizer adjustment based on a difference between a number of bits actually used to encode previous macroblocks of the frame and a number of bits that should have been used to encode previous macroblocks of the frame. The computer program encodes the macroblock based on a quantizer value computed as a sum of the base quantizer value and the quantizer adjustment.

The Office Action rejected claim 20 on the same rationale as claim 5. Accordingly, for reasons similar to those stated above for claim 5, Applicant respectfully submits that neither Chiang, Peak, nor their combination disclose or suggest a computer program that determines a quantizer adjustment based on a difference between a number of bits actually used to encode previous macroblocks of the frame and a number of bits that should have been used to encode previous macroblocks of the frame.

Accordingly, Applicant respectfully submits that neither Chiang, Peak, nor their combination renders claim 20 unpatentable. As claims 22-28 depend directly on claim 20, Applicant respectfully submits that claims 22-28 are patentable over the cited references for at least the reasons discussed above for claim 20. In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 20 and 22-28.

#### **VIII. Rejection of Claims 29 and 31 under 35 U.S.C. § 103**

The Office Action rejected claims 29 and 31 under § 103(a) as being unpatentable over Chiang in view of Peak. Claim 31 depends directly on claim 29.

Claim 29 recites a computer readable medium storing a computer program. When the computer program is executed by a processor, the computer program determines a quantizer value

for quantizing a particular macroblock of a particular frame in a sequence of digital video frames. When the particular frame is a first frame type, the computer program computes a number of bits that should have been used to encode all previously encoded macroblocks of the particular frame by using a first formula. When the particular frame is a second frame type, the computer program computes the number of bits that should have been used to encode all previously encoded macroblocks of the particular frame by using a second formula. The computer program determines a delta value that includes a difference between a number of bits actually used to encode all previous macroblocks of the frame and the computed number of bits that should have been used. The computer program quantizes the particular macroblock using a quantizer value computed as a sum of a base quantizer value and a quantizer adjustment. The quantizer adjustment is computer based on the delta value.

The Office Action rejected claim 29 on the same rationale as claim 14. Accordingly, for reasons similar to those stated above for claim 14, Applicant respectfully submits that Chiang, Peak, or their combination do not disclose or suggest a computer program that computes a number of bits that should have been used to encode all previously encoded macroblocks of a particular frame by using a first formula when the particular frame is a first frame type and a second formula when the particular frame is a second frame type.

Accordingly, Applicant respectfully submits that Chiang, Peak, or their combination do not render claim 29 unpatentable. As claim 31 depends directly on claim 29, Applicants respectfully submit that claim 31 is patentable over Chiang, Peak, or their combination for at least the reasons discussed above for claim 29. In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 29 and 31.

## IX. New Claim 43

In this Amendment and Response, Applicants have added claims 43. Applicants respectfully submit that claim 43 is fully supported by the disclosure and are patentable over the cited references.

## CONCLUSION

In view of the foregoing, Applicants respectfully submit that all the claims, namely claims 1, 3-5, 7-14, 16, 18-20, 22-29, 31-32, 34-35, and 37-43 are in condition for allowance. Reconsideration of the rejections is requested. Allowance is earnestly solicited at the earliest possible date.

Applicants have submitted all known required fees and petitions. Accordingly, Applicants believe that no additional fees, petitions for extensions of time, other petitions, and/or other forms of relief are required for the submission of this Amendment and Response. However, in the unlikely event that the Commissioner determines that additional fees, petitions for extensions of time, other petitions, and/or other forms of relief are required, Applicants hereby make such petitions as are required, request such extensions of time and other forms of relief as are required, and authorize the Commissioner to charge the cost of such petitions for extensions of time, other petitions, and/or other forms of relief to **Deposit Account No. 50-3804** referencing **APPLE.P0037**.

Respectfully Submitted,

September 4, 2009  
Date

/Palak Bhakta/  
Palak Bhakta  
Reg. No. 60,501

Adeli & Tollen LLP  
11940 San Vicente Blvd.Suite 100  
Los Angeles, CA 90049  
Tel. (310) 442-9300 x313  
Fax. (310) 442-9330